CLAIMS

1. Method of calibrating an ophthalmic lens drilling machine (1), the said machine comprising:

- a drilling tool (3);

- an ophthalmic lens support (2) associated with a first coordinate system (O_1, X_1, Y_1); and

- programmable means (11) for guiding the tool (3), which are associated with a second coordinate system expressing command coordinates (X, Y) which define a target drilling point (M),

in which method the following successive steps are carried out:

- a template (21) is placed on the support (2), the template having pre-applied markings defining a third coordinate system (O_3, X_3, Y_3) related to the said template, such that the third coordinate system is made to substantially coincide with the first coordinate system; and

- the template (21) is drilled in at least one predetermined point corresponding to a target point (M) defined by predetermined command coordinates (X, Y), such that a real drilling point (M_r) is obtained,

this method being characterized in that the following steps are then carried out in succession:

- an image (21I) of the template drilled in this way is created;

- the said image (21I) is analysed by image analysis means, so as to measure the offset (dX, dY) between the position of the real drilling point (M_r) and the position of the target point (M); and

- the guidance means (11) are programmed so as to introduce a correction of the command coordinates (X, Y) capable of compensating for the said offset (dX, dY).

2. Method according to Claim 1, characterized in that the markings defining the third coordinate system (O_3,

X_3, Y_3) comprise markings which define a centre (O_3) and markings which define two orthogonal axes (X_3, Y_3).

3. Method according to Claim 1 or 2, characterized in that, during the drilling step, the template (2) is drilled at two predetermined points, each corresponding to a target point (M) defined by predetermined command coordinates (X, Y), so as to obtain two real drilling points (M_r), and the correction is based on a mean value of the offset of the position (dX, dY) of the two real drilling points (M_r) with respect to the respective two target points (M).

4. Device for the implementation of a method according to any one of Claims 1 to 3, comprising:

- an image capture device (61);
- image analysis means (63) connected to the said image capture device (61), adapted to detect the position of the image (IM_r) of a real drilling point (M_r) of a template (21), in a coordinate system (IO_3, IX_3, IY_3) defined by the image of markings (O_3, X_3, Y_3) appearing on the said template (21), and to calculate an offset of position of the said image (IM_r) with respect to a predetermined target point (M) defined by pre-recorded coordinates (X, Y); and
- programming means (64) connected on the one hand to the image analysis means (63) and on the other hand to the means (11) of guiding an ophthalmic lens drilling machine (1), the said programming means (64) being adapted to receive an offset information element (dX, dY) from the image analysis means (63), and to program the guidance means (11) of the machine in response, so as to introduce a correction of the command coordinates (X, Y) as a function of the said offset information (dX, dY).

5. Device according to Claim 4, characterized in that it additionally comprises a screen (59) and means for illuminating an ophthalmic object, enabling a shadow of the

template (21) to be projected on to the screen (59), the said screen (59) being placed in the field of observation of the said image capture device (61).

6. Device according to Claim 5, characterized in that it comprises a transparent support (53) to receive the template (21), positioned between the means of illumination (55) and the screen (59).

7. Device according to Claim 6, characterized in that it comprises a collimator (57) positioned between the means of illumination (55) and the transparent support (53) to make the light rays emitted by the means of illumination (55) substantially parallel to each other and normal with respect to the support (53).

8. Device according to any one of Claims 5 to 7, characterized in that the screen (59) is a ground glass.

9. Device according to any one of Claims 4 to 8, characterized in that the image capture device (61) is a video camera.

10. Equipment for machining ophthalmic lenses, comprising:

- a drilling machine (1) which has

. a drilling tool (3);

. an ophthalmic lens support (2) associated with a first coordinate system (O_1, X_1, Y_1); and

. programmable means (11) for guiding the tool (3), which are associated with a second coordinate system expressing command coordinates (X, Y) which define a target drilling point (M), and

- a device according to any one of Claims 4 to 9, associated with the said drilling machine (1).